Air Force Research Laboratory|AFRL

Science and Technology for Tomorrow's Air and Space Force

Success Story

SENSORS PROGRAM MANAGER RECEIVES AOC AWARD FOR RESEARCH AND DEVELOPMENT

Mr. P. Aaron Linn, of the Sensors Directorate's Electronic Warfare Branch, received the Association of Old Crows (AOC) Research and Development Award. Mr. Linn received the award for his achievement in the research and development of new electronic warfare technology. He was specifically recognized for his efforts in the design, development, and test and evaluation of state-of-the-art passive radar precision location and combat identification (ID) technology.

Air Force Research Laboratory
Wright-Patterson AFB OH

Accomplishment

Mr. Linn received the AOC Research and Development Award for developing the advanced threat alert and response (ATAR) receiver architecture. The ATAR receiver is a revolutionary, low-cost passive radar precision location combat ID and countermeasures receiver.

Background

Mr. Linn is also recognized as an excellent technology development planner and astute program manager. He works with users and industry to deliver advanced products that provide demonstrated improvements to operational equipment and missions. He spearheaded the integration of the ATAR and lightweight modular support jamming (LMSJ) systems that provide an electronic warfare system with warning, targeting, and support jamming capabilities. He also served as the electronic warfare technical lead in the development of the Advanced Tactical Targeting Technology (AT3) Suppression of Enemy Air Defenses (SEAD) targeting program, an affordable, accurate, rapid threat geo-location system.

Mr. Linn defined geo-location, radar ID, and commercial interface requirements for the ATAR and LMSJ systems. He instituted a requirements analysis and system development effort, which encompassed the trade space of receiver utilization, techniques, techniques generator, and interface. The ATAR receiver, in conjunction with the LMSJ jammer, has broken the traditional barriers between electronic support measures and electronic countermeasures systems and will open the door to new techniques and jammer resource management.

As a lead engineer, Mr. Linn provided technical guidance to define AT3 architecture with respect to multiship geo-location and pulse train alignment techniques, and dynamic data link approaches and receiver technology including digital signal processing and atomic clock technologies. The AT3 program has developed and demonstrated technologies for affordable, accurate, rapid threat geo-location for lethal SEAD. An order-of-magnitude improvement in target geo-location accuracy enables the use of shoot-to-coordinate precision-guided munitions to counter the evolving threat, without sensitivity to radar shutdown countermeasures.

Sensors
Awards and Recognition

Additional information

To receive more information about this or other activities in the Air Force Research Laboratory, contact TECH CONNECT, AFRL/XPTC, (800) 203-6451 and you will be directed to the appropriate laboratory expert. (04-SN-02)